

Model No.: KIT COPLANAR

Tin Roof System Installation Manual




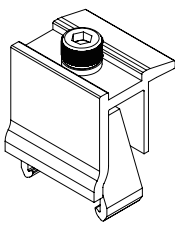
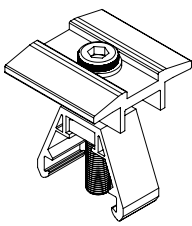

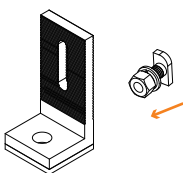
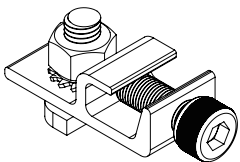

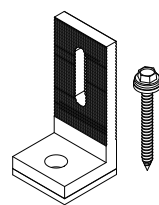
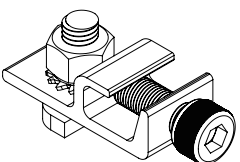

Version No.: CHIKO-20180615-V.01

I. Installation Rule

Installation of the framing shall comply with relevant local government standards, manufacturer's specifications and good building practices. The roof which the panels to be installed shall comply with the relevant local government standards.

- Follow the risk management process prior to commencing work – including identify hazards, assess risks, eliminate or control them.
- Consult with those involved in the work.
- Develop safe work procedures for installing solar panels, using information from the risk management process, which would include reviewing the following information:
 - Provide appropriate information and training to those involved in performing the work.
 - Provide appropriate tools and personal protective equipment (PPE).
 - Ensure that a system is in place to prevent or arrest falls.
 - Ensure there are adequate first aid facilities.
 - Ensure all employees are aware of the emergency procedures.

II. Installation Tools

 <input type="checkbox"/> Tape Measure	 <input type="checkbox"/> Chalk Line	 <input type="checkbox"/> Labor Protection Products
 End Clamp	 Mid Clamp	 <input type="checkbox"/> Allen Key
 13# Hook	 Grounding Lug	
 13# Hook	 Grounding Lug	 <input type="checkbox"/> Open-end Spanner

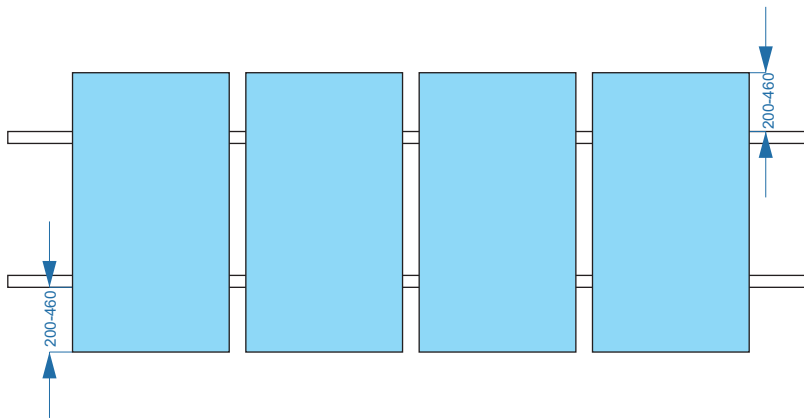
III. NOTICE

This manual is for a non-integral module or panel, assembly to be mounted over a fire resistant roof covering rated for the application.

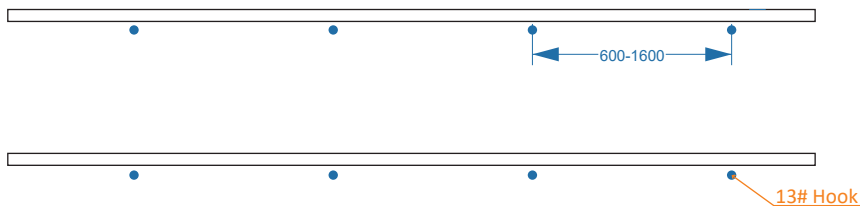
Re-inspect the installation in case of loose components, loose fasteners or any corrosion, the affected components should be replaced immediately.

1. Rail spacing's are as follows:

- When installing in portrait profile, rails should keep 200mm to 460mm from the module edge.



- The distance between Chiko 13# hooks on tile roof could be 600-1600mm.



2. Minimum design load for Chiko Tile Roof Mounting System:

- a) Downward Pressures - 10 psf allowable load.
- b) Upward Pressure - 5 psf allowable load.
- c) Down-Slope Load - 5 psf allowable load.

3. System Fire Class Rating: A

4. Max. Rated Current: 30A

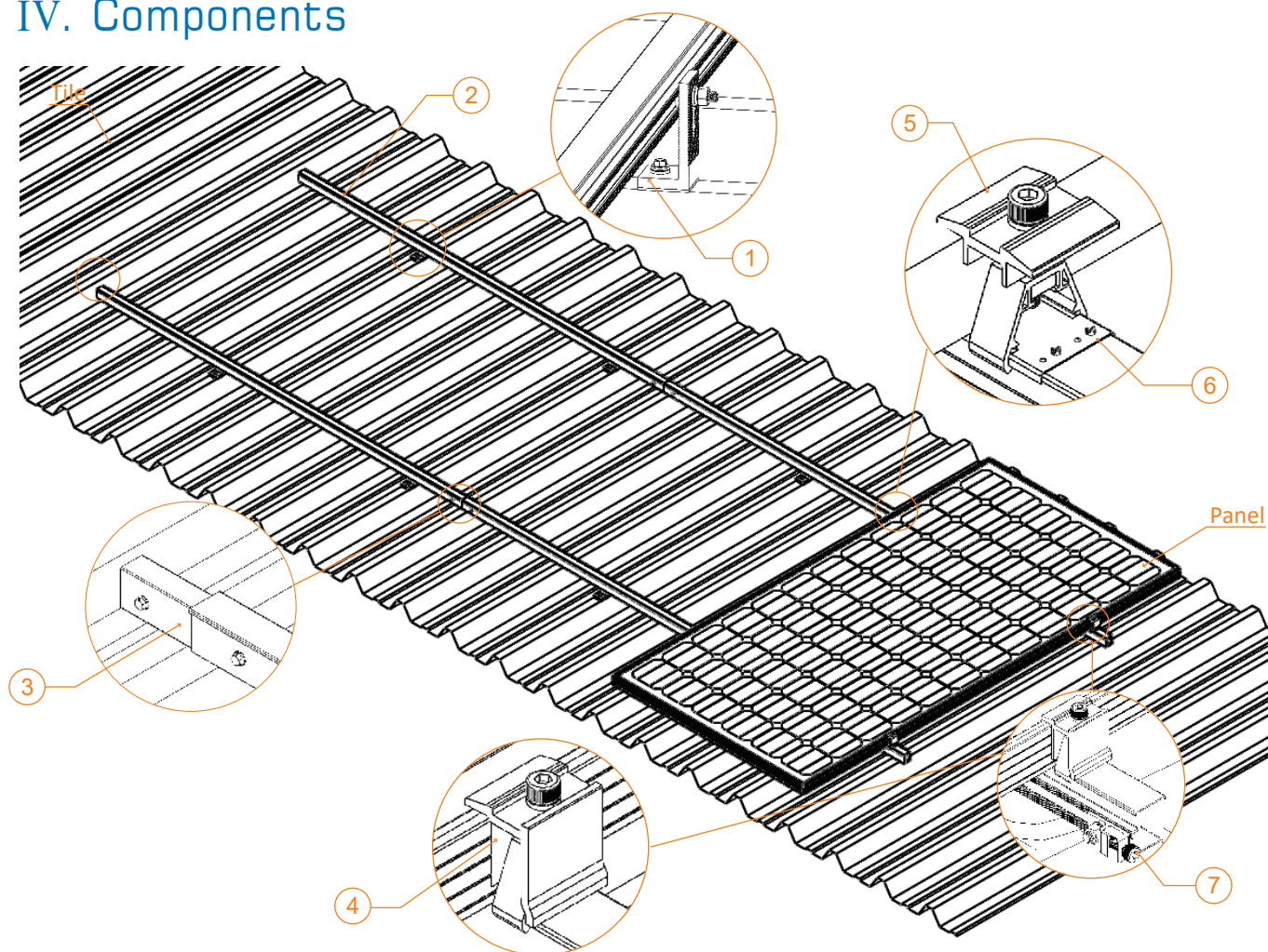
5. The test solar panel is UL Listed CHAN GZHOU TRINA SOLAR ENERGY CO., LTD: TSM-290PD14, TSM-295PD14, TSM-300PD14, TSM-305PD14, TSM-310PD14, TSM-315PD14, TSM-320PD14, TSM-325PD14, TSM-330PD14, module fire performance type 1

6. This racking system may be used on steep-sloped roofs with slopes greater than or equal to 2 in/ft. (167mm/m or 9.46°), and the installed PV module complying with UL 1703 only when the specific module has been evaluated for grounding or installed in compliance with the included instructions.








7. The CK -TR System is intended to be mounted to a roof using the components listed in the manual.

If any component is added or changed, it may affect the UL listing or the System Fire Class rating.

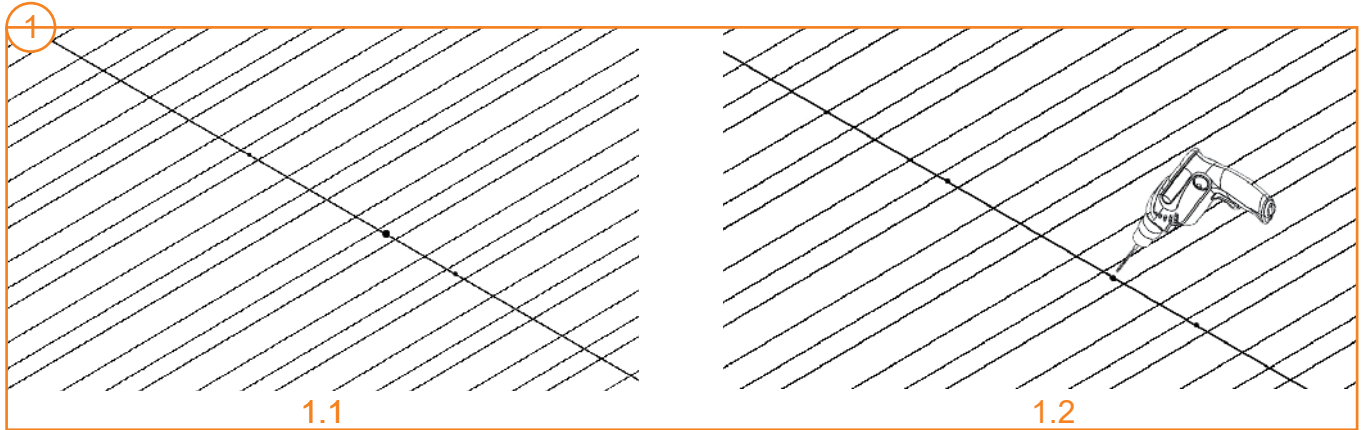
IV. Components



V. Hook Spacing Table

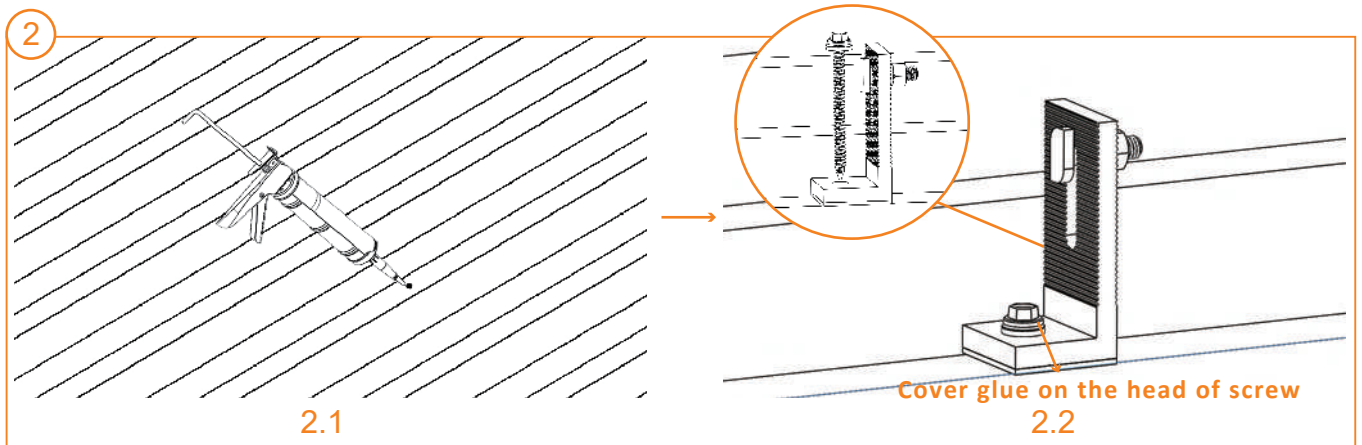
Item	Sales No.	Description	Picture	Quantity
				4PCS/Kit
1	CK-FT-43R-2400	CHIKO standard #43 Rail 2400mm		4
2	CK-SKA	CHIKO Solar Standard 43R Rail Splice Kit		4
3	CK-FTM-T40	CHIKO Solar T adjustable Mid Clamp Kit 30-40mm		6
4	CK-IS-136	CHIKO Grounding clip		6
5	CK-FTE-T40	CHIKO Solar T Adjustable End Clamp Kit 30- 40mm		4
6	CK-FTH-013	CHIKO Hook #13 L feet		8
7	CK-GTC-R2	CHIKO Grounding Lug		2

VI. Installation Steps

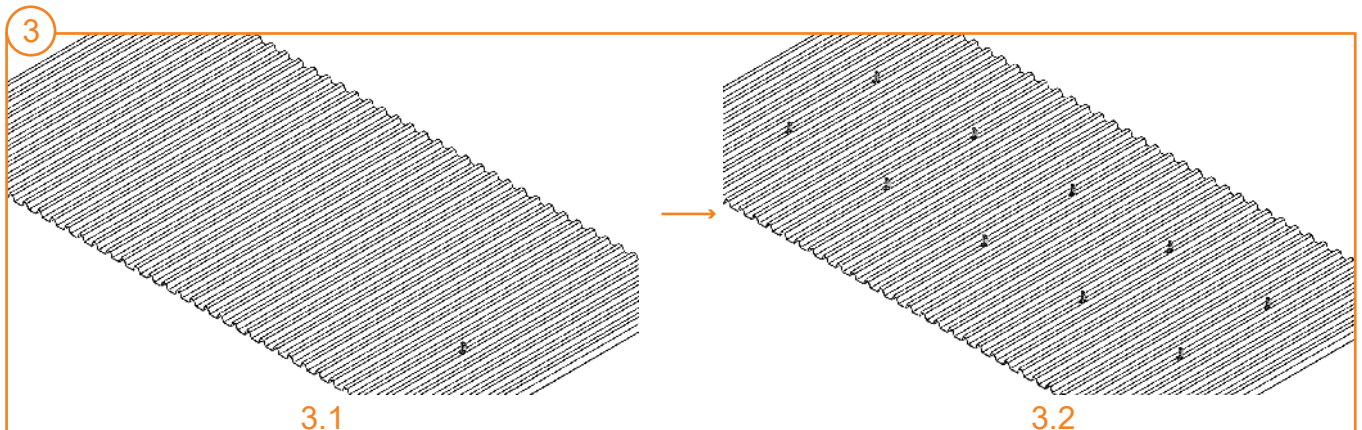


Determine where the roofs mounts will be positioned based on position of existing roof screws, and mark it with a chalk line. Determined a position where the L foot will be attached on a unused crest. Drill a single 6mm pilot hole.

Installation of Chiko 13# Hook

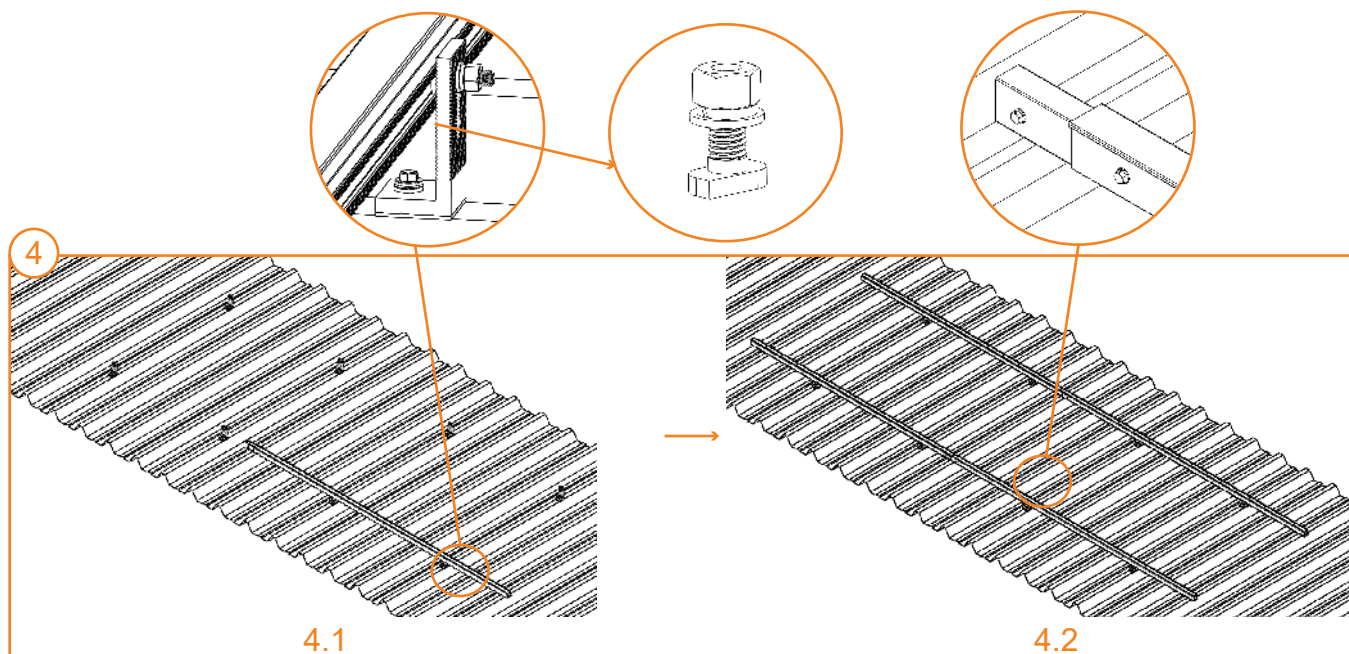


Backfill the pilot hole with sealant then fix the L-foot in place. Fix the L-foot in line. Then cover the glue on the head of screws to avoid rust.



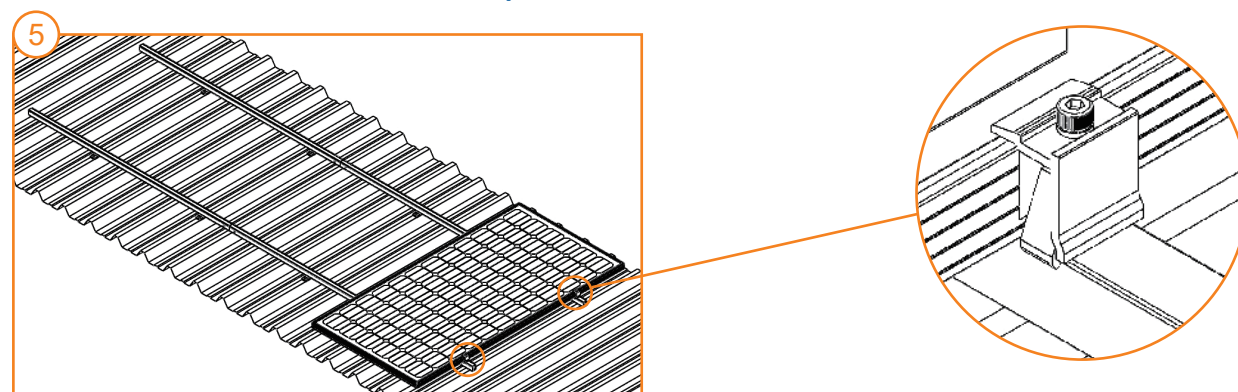
Install all the 13# hooks according to step 2.

Installation of Rail

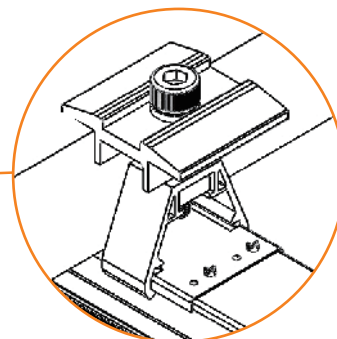
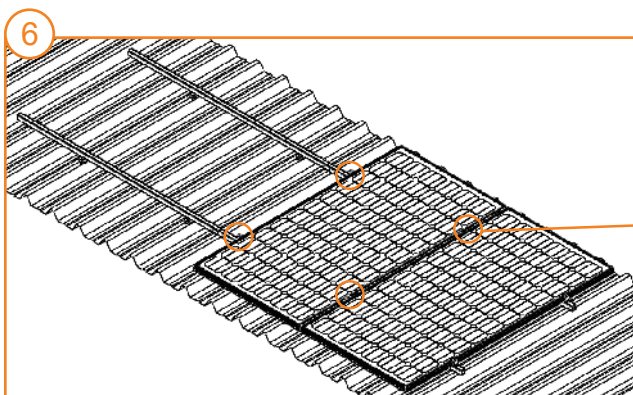


Connect the rail to the 13# hooks with the T-bolt M8*28 and nut. Fasten to secure. Use the rail splice kit to connect the two rails with the two $\phi 4.2 \times 16$ self tapping bolts.

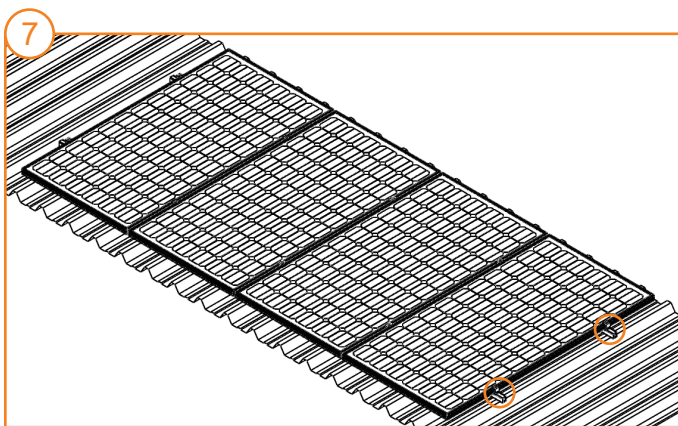
Installation of End and Mid Clamps



Put the first PV module on the two parallel rails ,fasten the end clamp with inner hex bolts M8 to secure one side of the panel .then slot two mid clamp on the rail.

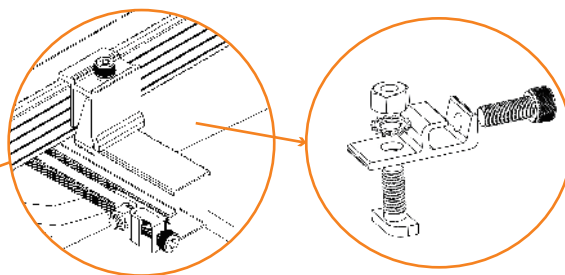
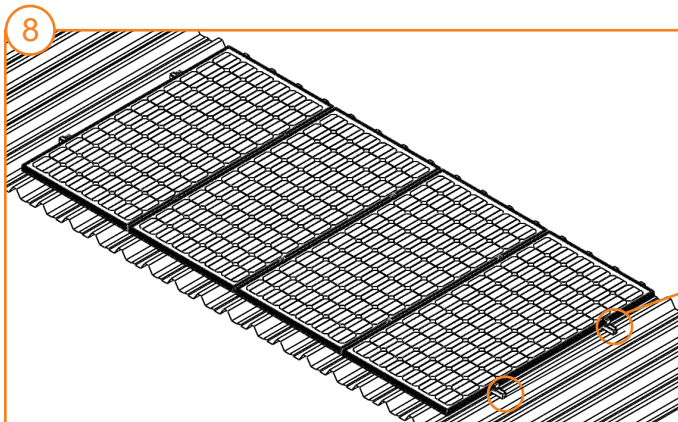


Put the second panel on the rail, fasten the mid clamps with inner hex bolts M8 at all locations where two panel meet.



Install all the panels and fasten end clamps at the end of each array.

Installation of Grounding lug



Install a grounding lug onto each rail line edge with an inner hex bolt M8*25 and a stainless steel nut, then connect 8.4mm² (greater than or equal to 8AWG) copper wire through all the grounding lugs (fixed by M8*20 inner hex bolt), finally connect a copper wire to the ground. The grounding lug has grounding function when fastened tight to the rail and copper grounding wire.

WORLDLEADING

M A N U F A C T U R E



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